

Appendix A – Level 1 Screening Alternatives



ALTERNATIVE 1 (SOUTH BRIDGE)	
ADVANTAGES:	<ul style="list-style-type: none"> Utilizes existing SR 302 corridor/alignment from Key Peninsula Highway through the curve near Springbrook Lane NW (west of the Purdy Spit). Provides direct tie to SR 16/Burnham Drive interchange. Maintains existing local access along SR 302 up to where the new alignment crosses Henderson Inlet. Maximizes use of the existing SR 302 right-of-way. Improves emergency response times by providing a direct route between the Peninsula and the new Gig Harbor Hospital.
DISADVANTAGES:	<ul style="list-style-type: none"> Requires a new long span structure to cross Henderson Inlet to Woodhill Drive. Requires additional right-of-way to extend the corridor from Springbrook Lane to Woodhill Drive and from Springbrook Lane to Burnham Drive. SR 302 alignment extends through existing residential neighborhoods and would include impacts to numerous properties along the waterfront. Requires relocation of multiple residential properties. Requires substantial improvement of the SR 16/Burnham Drive interchange. Placement of bridge and abutments would be located within Landslide Hazard Areas. SR 302 alignment would cross multiple aquifer recharge areas as identified in the WSDOT GeoDatabase. Substantial traffic impacts during construction along the existing SR 302 alignment. Potential impacts to the 100-year floodplain as identified in the WSDOT GeoDatabase. Potential impacts to the community's visual quality along Burley. Potential impacts to the construction of a new, larger bridge. Potential impacts to Minter Creek. Potential increase in maintenance costs with construction of larger structure.





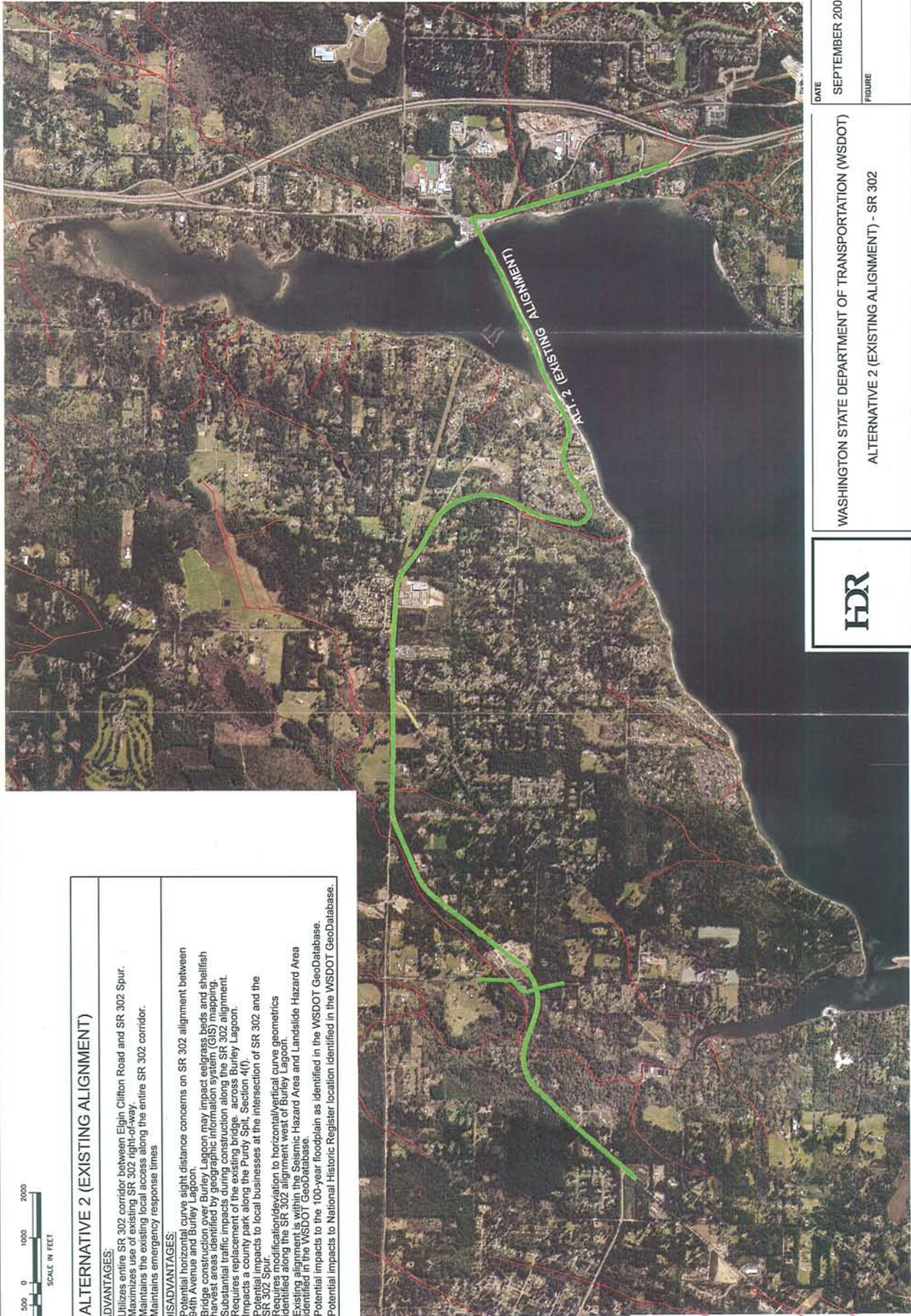
ALTERNATIVE 2 (EXISTING ALIGNMENT)

ADVANTAGES:

- Utilizes entire SR 302 corridor between Elgin Clifton Road and SR 302 Spur.
- Maximizes use of existing SR 302 right-of-way.
- Maintains the existing local access along the entire SR 302 corridor.
- Maintains emergency response times

DISADVANTAGES:

- Potential horizontal curve sight distance concerns on SR 302 alignment between 94th Avenue and Burley Lagoon.
- Bridge construction over Burley Lagoon may impact eelgrass beds and shellfish harvest areas identified by geographic information system (GIS) mapping.
- Substantial traffic impacts during construction along the SR 302 alignment.
- Requires replacement of the existing bridge across Burley Lagoon.
- Impacts a county park along the Purdy Spit, Section 4(f).
- Significant impacts to local businesses at the intersection of SR 302 and the SR 302 Spur.
- Requires modification/deviation to horizontal/vertical curve geometrics identified along the SR 302 alignment west of Burley Lagoon.
- Existing alignment is within the Seismic Hazard Area and Landslide Hazard Area identified in the WSDOT GeoDatabase.
- Potential impacts to the 100-year floodplain as identified in the WSDOT GeoDatabase.
- Potential impacts to National Historic Register location identified in the WSDOT GeoDatabase.



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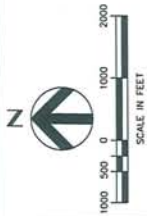
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FIGURE

ALTERNATIVE 2 (EXISTING ALIGNMENT) - SR 302

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ALTERNATIVE 3 (POWER LINE)

ADVANTAGES:

- Minimizes impacts to properties by utilizing a majority of the existing SR 302 alignment and the power line right-of-way.
- Would improve mainline operations by providing an alignment that met WSDOT's horizontal and vertical geometric design standards.
- Maintains emergency response times

DISADVANTAGES:

- Bridge construction over Burley Lagoon may impact eelgrass beds and shellfish harvest areas identified by existing GIS mapping.
- Requires new large elevated bridge across Burley Lagoon.
- Potential impacts to the 100-Year flood plain as identified in the WSDOT GeoDatabase.
- Alignment is within the Seismic Hazard Area and Landslide Hazard Area identified in the WSDOT GeoDatabase.
- Impacts Tacoma Power major transmission line across Burley Lagoon.
- Potential impacts to National Historic Register location identified in the WSDOT GeoDatabase.
- Potential impacts to the community's visual quality along Burley Lagoon/Henderson Inlet with construction of a new, larger bridge.



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FIGURE

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ALTERNATIVE 3 (POWER LINE) - SR 302

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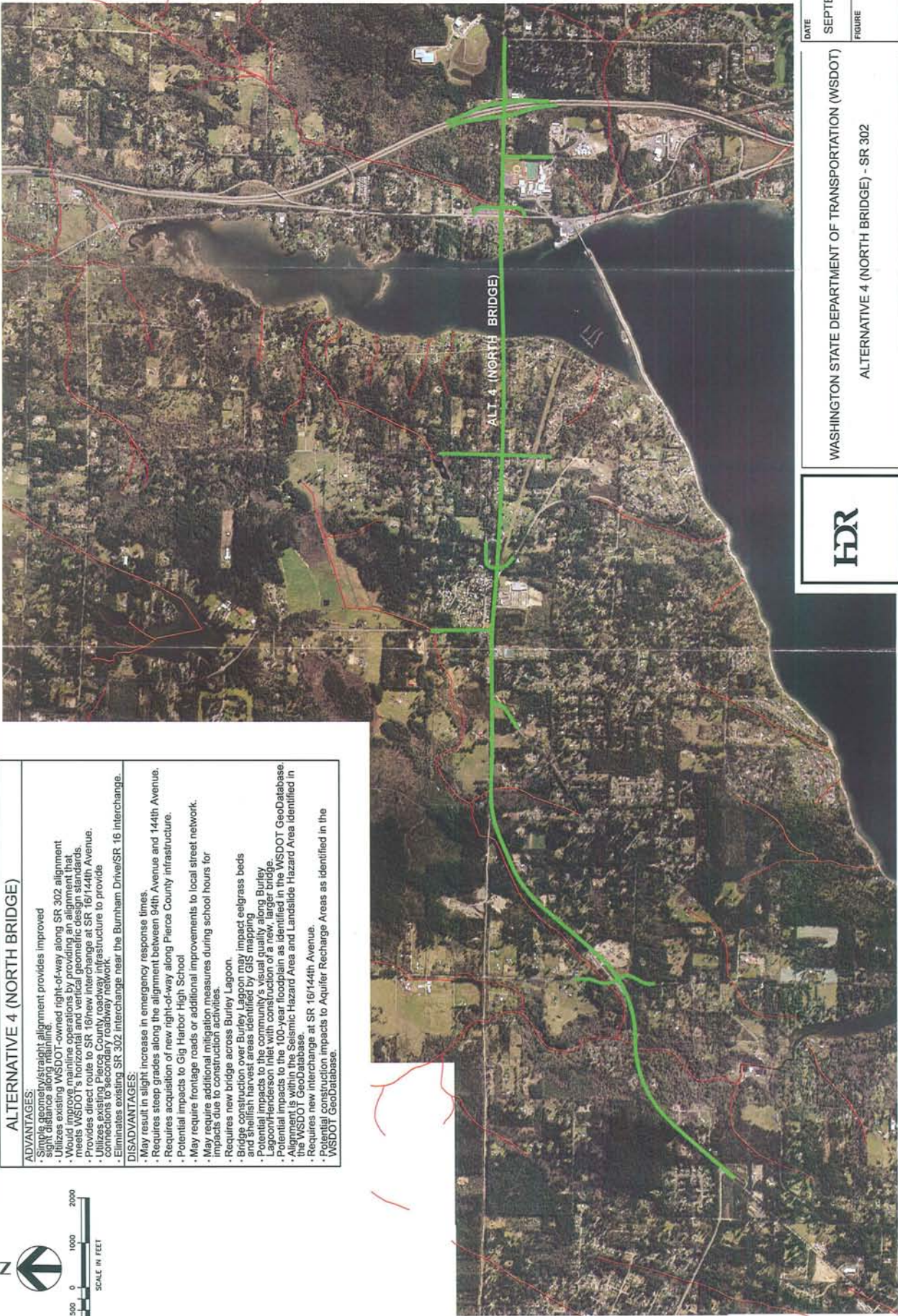
ALTERNATIVE 4 (NORTH BRIDGE)

ADVANTAGES:

- Simple geometry/straight alignment provides improved
- Utilizes existing WSDOT-owned right-of-way along SR 302 alignment
- Would improve mainline operations by providing an alignment that meets WSDOT's horizontal and vertical geometric design standards.
- Provides direct route to SR 16/new interchange at SR 16/144th Avenue.
- Utilizes existing Pierce County roadway infrastructure to provide connections to secondary roadway network.
- Eliminates existing SR 302 interchange near the Burnham Drive/SR 16 interchange.

DISADVANTAGES:

- May result in slight increase in emergency response times.
- Requires steep grades along the alignment between 94th Avenue and 144th Avenue.
- Requires acquisition of new right-of-way along Pierce County infrastructure.
- Potential impacts to Gig Harbor High School
- May require frontage roads or additional improvements to local street network.
- May require additional mitigation measures during school hours for impacts due to construction activities.
- Requires new bridge across Burley Lagoon.
- Bridge construction over Burley Lagoon may impact eelgrass beds and shellfish harvest areas identified by GIS mapping
- Potential impacts to the community's visual quality along Burley Lagoon/Henderson Inlet with construction of a new, larger bridge.
- Potential impacts to the 100-year floodplain as identified in the WSDOT GeoDatabase.
- Potential impacts to the Seismic Hazard Area and Landslide Hazard Area identified in the WSDOT GeoDatabase.
- Requires new interchange at SR 16/144th Avenue.
- Potential construction impacts to Aquifer Recharge Areas as identified in the WSDOT GeoDatabase.



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FIGURE

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ALTERNATIVE 4 (NORTH BRIDGE) - SR 302





ALTERNATIVE 5 (SPRUCE DIAGONAL)

ADVANTAGES:

- Minor impacts to residences, low probability for relocations.
- Utilizes existing Pierce County/Kitsap County roadway infrastructure.
- Provide a new interchange and direct connection with SR 16.
- Avoids potential Landslide Hazard Areas as identified in the WSDOT GeoDatabase.
- Would improve mainline operations by providing an alignment that meets WSDOT's horizontal and vertical geometric design standards.
- Promotes possibility of phased construction.
- Fewer impacts to existing traffic during construction.
- No impacts to Burley Lagoon.

DISADVANTAGES:

- Requires acquisition of right-of-way along Pierce County/Kitsap County infrastructure.
- Provides no direct connection to Gig Harbor community through existing roadway network.
- Requires new interchange at SR 16/Spruce Road, less than 1 mile from the Burley Olalia Interchange.
- Potential impacts to 100-year flood plain as identified in the WSDOT GeoDatabase.
- Potential impacts to wetland areas as identified in the WSDOT GeoDatabase.
- Potential impacts to National Historic Register location identified in the WSDOT GeoDatabase.
- Impacts to cultural resource impacts at the north end of Burley Lagoon.
- Impacts to traffic on county roadway network during construction.
- Potential increase in emergency response time compared with the existing route.



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FIGURE

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ALTERNATIVE 5 (SPRUCE DIAGONAL) - SR 302

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ALTERNATIVE 6 (PINE DIAGONAL)

ADVANTAGES:

- Minor impacts to residences, low probability for relocations
- Utilizes existing Pierce County/Kitsap County roadway infrastructure.
- Provides direct connection with SR 16 at new SR 16/Pine Road interchange
- Avoids potential Landslide Hazard Areas as identified in the WSDOT GeoDatabase.
- Would improve mainline operations by providing an alignment that met WSDOT's horizontal and vertical geometric design standards.
- No impacts to Burley Lagoon.

DISADVANTAGES:

- Requires acquisition of right-of-way along Pierce County/Kitsap County roadway infrastructure and new interchange at SR 16.
- Requires construction of new interchange at SR 16/Pine Road.
- Potential impacts to 100-year flood plain as identified in the WSDOT GeoDatabase.
- Potential impacts to wetland areas as identified in the WSDOT GeoDatabase.
- Potential impacts to National Historic Register location identified in the WSDOT GeoDatabase.
- Potential increase in emergency response time compared with the existing route.
- Provides no direct route to Gig Harbor community through existing roadway network.



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FIGURE

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ALTERNATIVE 6 (PINE DIAG.) - SR 302

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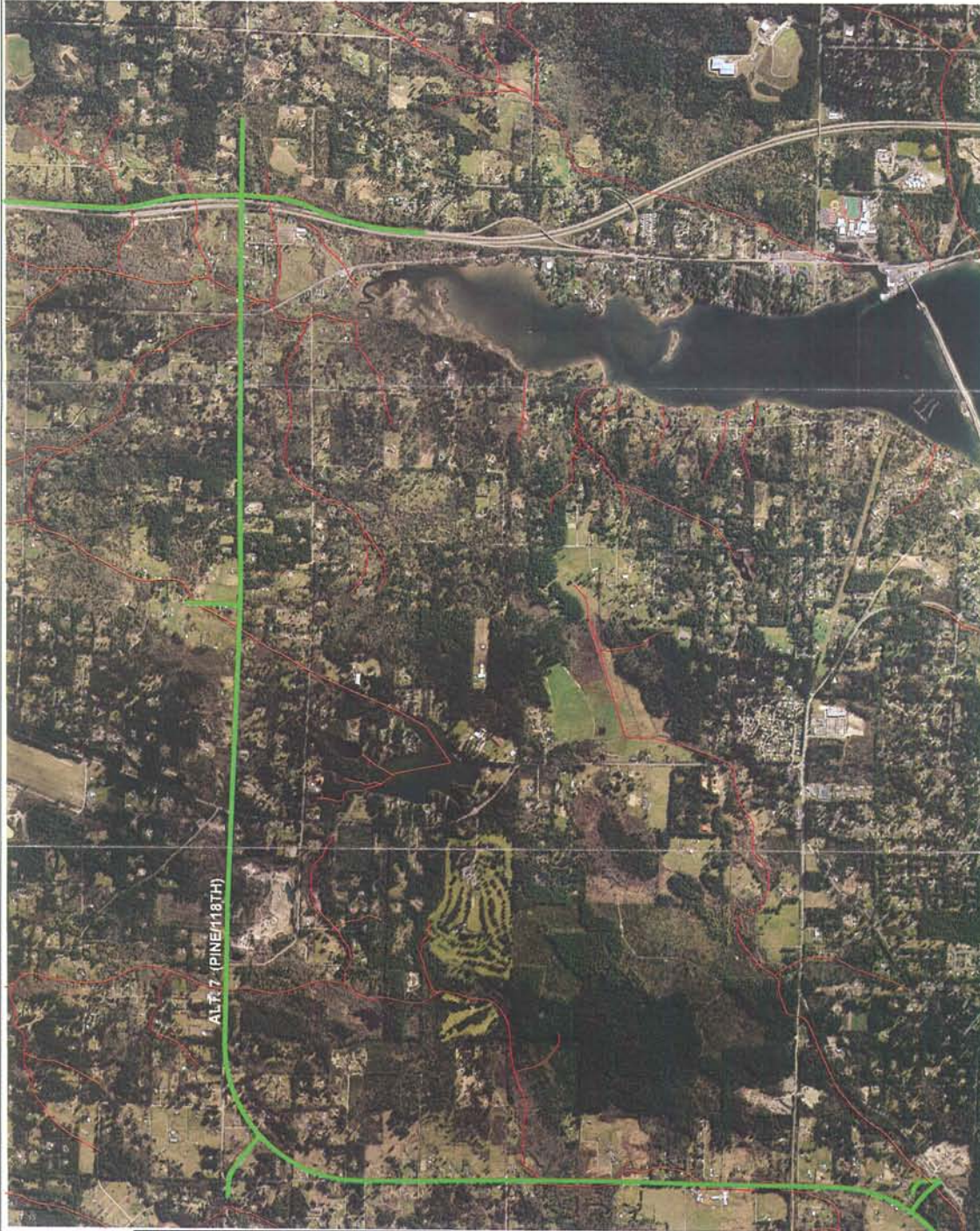
ALTERNATIVE 7 (PINE / 118TH)

ADVANTAGES:

- Connects into SR 16 at existing interchange at Burnham Drive via the SR 302 Spur.
- Minor impacts to residences, low probability for relocations.
- Would improve mainline operations by providing an alignment that met WSDOT's jurisdiction and regional design standards.
- Utilizes existing Pierce County/Klaap County roadway infrastructure.
- Reduces impacts to traffic on SR 302 alignment during construction.

DISADVANTAGES:

- Requires steep grades along the alignment between Madrona Road and SR 16.
- Impacts traffic on 118th Avenue and SW Pine Road during construction.
- Requires multiple creek crossings (bridges) along 118th Avenue.
- Potential impacts to wetland areas as identified in the WSDOT GeoDatabase.
- Potential impacts to the 100-Year floodplain as identified in the WSDOT GeoDatabase.
- Increases the overall length of the SR 302 corridor.
- Potential cultural resource impacts at the north end of Burley Lagoon.
- Potential increase in emergency response time compared with the existing route.



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ALTERNATIVE 7 (PINE/118TH) - SR 302

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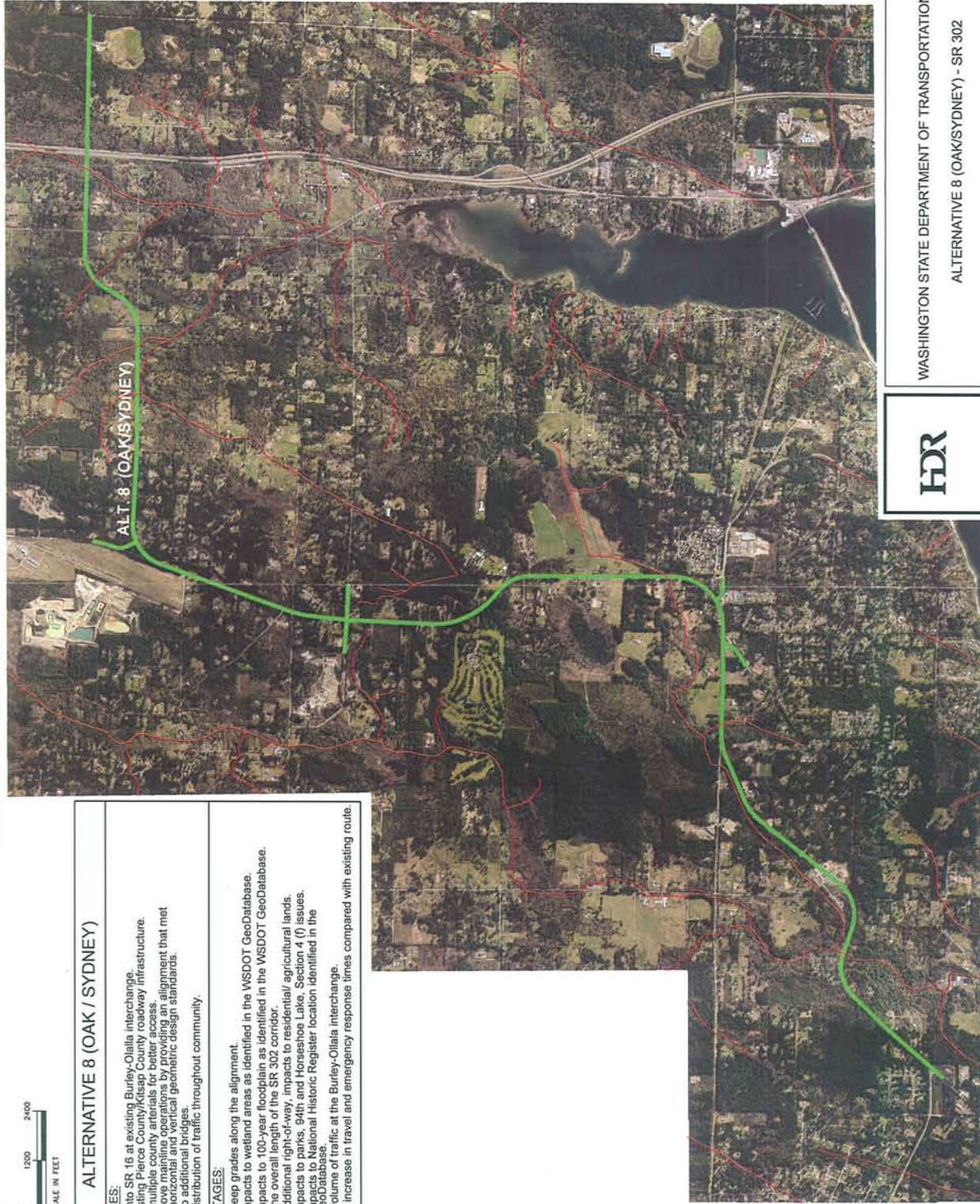
ALTERNATIVE 8 (OAK / SYDNEY)

ADVANTAGES:

- Connects into SR 16 at existing Burley-Olalia interchange.
- Utilizes existing Pierce County/Kitsap County roadway infrastructure.
- Intersects multiple county arterials for better access.
- Would improve mainline operations by providing an alignment that met Washington State Department of Transportation (WSDOT) design standards.
- Requires no additional bridges.
- Improves distribution of traffic throughout community.

DISADVANTAGES:

- Requires steep grades along the alignment.
- Potential impacts to wetland areas as identified in the WSDOT GeoDatabase.
- Potential impacts to 100-year floodplain as identified in the WSDOT GeoDatabase.
- Increases the overall length of the SR 302 corridor.
- Requires additional right-of-way, impacts to residential/agricultural lands.
- Potential impacts to trails, 94th and Horseshoe Lake, Section 4 (f) issues.
- Potential impacts to National Historic Register location identified in the WSDOT GeoDatabase.
- Increases volume of traffic at the Burley-Olalia interchange.
- Substantial increase in travel and emergency response times compared with existing route.



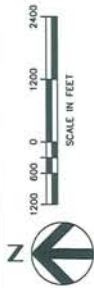
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ALTERNATIVE 8 (OAK/SYDNEY) - SR 302

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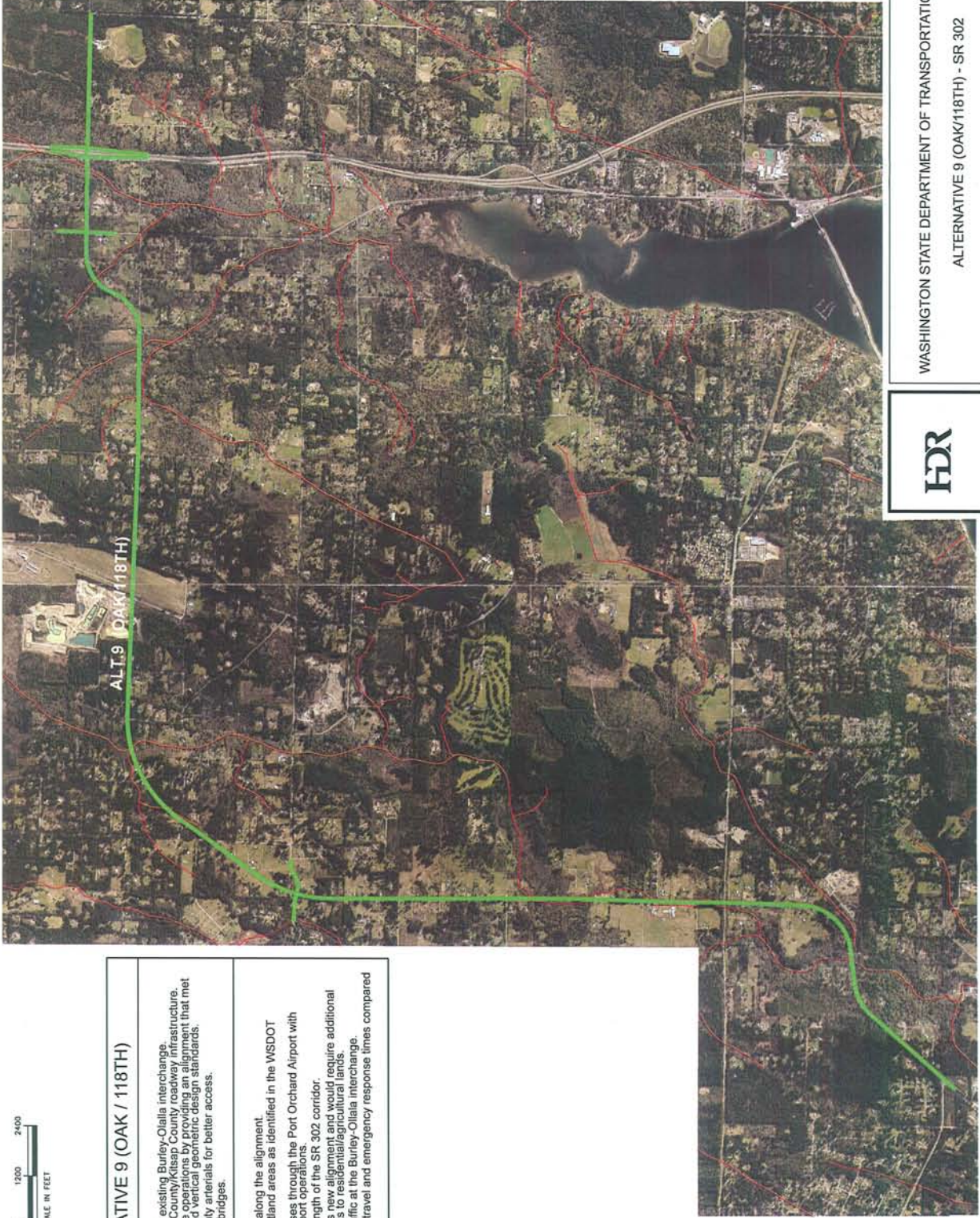
ALTERNATIVE 9 (OAK / 118TH)

ADVANTAGES:

- Connects into SR 16 at existing Burley-Olalia interchange.
- Utilizes existing Pierce County/Kitsap County roadway infrastructure.
- Would improve mainline operations by providing an alignment that met WSDOT's horizontal and vertical geometric design standards.
- Intersects multiple county arterials for better access.
- Requires no additional bridges.

DISADVANTAGES:

- Requires steep grades along the alignment.
- Potential impacts to wetland areas as identified in the WSDOT GeoDatabase.
- Proposed corridor crosses through the Port Orchard Airport with potential impacts to airport operations.
- Increases the overall length of the SR 302 corridor.
- Part of this alternative is new alignment and would require additional right-of-way and impacts to residential/agricultural lands.
- Increased volume of traffic at the Burley-Olalia interchange.
- Substantial increase in travel and emergency response times compared with existing route.



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ALTERNATIVE 9 (OAK/118TH) - SR 302

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FIGURE